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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,421	01/23/2004	Frank W. Brice JR.	POU920030027US1	8191

46369 7590 01/19/2007  
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EXAMINER
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MARTINEZ, DAVID E

ART UNIT	PAPER NUMBER
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2181

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/764,421

Applicant(s)

BRICE ET AL.

Examiner

David E. Martinez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-24, 26-40 and 42-46 is/are rejected.
- 7) ☒ Claim(s) 10, 25 and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/24/06.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11-22, 26-38 and 42-46 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,568,648 to Coscarella et al. (hereinafter Coscarella).

1. With regards to claims 1, 16, 31 and 32, Coscarella teaches a method of enhancing input/output (I/O) connectivity of a communications environment, said method comprising:

providing a plurality of sets of I/O communications subadapters [figs 2 and 3 elements 202A-202D] to an operating system image [fig 1 element 172] of the communications environment [figs 1, 2 and 3A, 3B, elements 102 and 102'], said plurality of sets of I/O communications subadapters [figs 2 and 3A, elements 202A-202D] providing information [column 2 lines 8-33, and column 5 line 57 to column 6 line 15] to the operating system image [fig 1 element 172] relating to a plurality of components [figs 1, 2 and 3A, 3B, element 106 including elements 128A-128J] associated with the plurality of sets of I/O communications subadapters [figs 2 and 3A, elements 202A-202D], and wherein at least one set of I/O communications subadapters [any of the elements 202A-202D in figs 2 and 3A] of the plurality of sets of I/O communications subadapters [figs 2 and 3A, elements 202A-202D] comprises a plurality of I/O communications subadapters [fig 2 elements 204A, 204E within element 202A, elements 204H, 204I within element 202B, elements 204H, 204I in element 202C, and elements 204H, 204I in element 202D – are used to address different channel paths. (204x addresses channel 128x). Elements 204x are used to address physical paths. e.g. 204H and 204I within

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element 202B, address the physical path to 128H and 128I respectively thus 204H and 204I being subadapters themselves – see column 2 lines 8-33. Alternatively, in fig 3 elements 304x within elements 202A-202D also act as subadapters by pointing to plurality of paths or channels – column 5 line 57 to column 6 line 54].

2. With regards to claims 2, 17 and 33, Coscarella teaches the method of claim 1, wherein an I/O communications subadapter [fig 2 element 202C] of one set of said plurality of sets of I/O communications subadapters is associated with a component [fig 2 element 202C is associated to elements 128H and 128I] of the plurality of components [figs 1 and 2, element 106 including fig 2 elements 128A-128J], and an I/O communications subadapter [fig 2 element 202D] of another set of said plurality of sets of I/O communications subadapters is associated with the component [fig 2 element 202D is also associated to elements 128H and 128I].

3. With regards to claims 3, 18 and 34, Coscarella teaches the method of claim 2, wherein the component comprises an I/O device [figs 1, 2, 3A and 3B, elements 106 and 106' include elements 128A-128J are I/O devices – column 1 lines 29-30].

4. With regards to claims 4, 19 and 35, Coscarella teaches the method of claim 1, wherein the plurality of sets of I/O communications subadapters [fig 3A elements 202A-202D] is transparent to an operating system image not exploiting the plurality of sets of I/O communications subadapters [column 2 lines 8-33 disclose the subadapters are used by the ram or the IOP processor element 118 which are ultimately controlled to operate by the operating system].

5. With regards to claims 5, 20 and 36, Coscarella teaches the method of claim 4, wherein a default set of I/O communications subadapters is used for the operating system image not exploiting the plurality of sets of I/O communications subadapters [column 9 lines 19-35].

6. With regards to claims 6, 21 and 37, Coscarella teaches the method of claim 1, further comprising enabling use of the plurality of sets of I/O communications subadapters by the operating system image [column 9 lines 19-35].

7. With regards to claims 7, 22 and 38, Coscarella teaches the method of claim 6, wherein the enabling use comprises setting an enable indicator by the operating system image via a command executed by the operating system image to enable use of sets of I/O communications subadapters [column 9 lines 19-35 – elements 202 are set to effectively store CHPIDS which when set, are enable indicators. If they aren't set then there is no element to call thus not enabled that enable the use of the subadapters (paths or channels)].

8. With regards to claims 11, 26 and 42, Coscarella teaches the method of claim 1, wherein a set of I/O communications subadapters of the plurality of sets of I/O communications subadapters comprises a plurality of I/O communication subadapters [see claim 1 rejection above] and is represented by a subchannel set identifier [column 5 line 57 to column 6 line 54 – elements 202 are tables which hold data. In order to access the tables (or the data within), the table must have some identifier to call when accessing it in order to change access or change the data within].

9. With regards to claims 12, 27 and 43, Coscarella teaches the method of claim 1, further comprising changing a set of I/O communications subadapters of the plurality of sets of I/O communications subadapters, said changing comprising adding, deleting or revising a definition of an I/O communications subadapter in a configuration definition defining said set of I/O communications subadapters [either one of fig 2 element 202C or 202D can be used to access components 128H or 128I. The use of one subadapter (within element 202C) to communicate could be changed for communication to take place by the use of the other subadapter (within element 202D) since they both access the same component (revising the definition)].

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10. With regards to claims 13, 28 and 44, Coscarella teaches the method of claim 1, wherein a set of I/O communications subadapters of the plurality of sets I/O communications subadapters includes a different number of I/O communications subadapters than another set of I/O communication subadapters of the plurality of sets of I/O communications subadapters [figs 2 and 3A, set element 202A is one element, and set elements 202B-202D are three elements].

11. With regards to claims 14, 29 and 45, Coscarella teaches the method of claim 1, wherein a set of I/O communications subadapters of the plurality of sets I/O communications subadapters includes a same number of I/O communications subadapters as another set of I/O communication subadapters of the plurality of sets of I/O communications subadapters [figs 2 and 3A, set element 202A and 202B are two elements, and set elements 202C and 202D are two elements].

12. With regards to claims 15, 30 and 46, Coscarella teaches the method of claim 1, wherein the plurality of sets of I/O communications subadapters [figs 2 and 3 elements 202A-202D] comprises a plurality of sets of subchannels [column 2 lines 10-12 and column 5 line 57 to column 6 line 15] and the plurality of components comprises a plurality of I/O devices [figs 1, 2, 3A and 3B, elements 106 and 106' include elements 128A-128J are I/O devices].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10, 23-25 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,568,648 to Coscarella et al. (hereinafter Coscarella). In view

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of US Patent Application Publication No. US 2004/0230783A1 to Brice JR. et al. (hereinafter Brice).

The applied reference has a common assignee and at least one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(I)(1) and § 706.02(I)(2).

13. With regards to claims 8, 23 and 39, Coscarella is silent as to the method of claim 1, wherein the plurality of sets of I/O communications subadapters are associated with a multiple image facility image coupled to a logical partition of the communications environment, said logical partition executing the operating system image. However, Brice teaches a plurality of sets of I/O communications subadapters are associated with a multiple image facility image coupled to a logical partition of the communications environment, said logical partition executing the operating system for the benefit of allowing each logical partition to achieve independent

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access to channel paths, control units and I/O devices that are configured to and dynamically shared by multiple logical devices [paragraphs 67-70].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Coscarella and Brice to have the plurality of sets of I/O communications subadapters are associated with a multiple image facility image coupled to a logical partition of the communications environment, said logical partition executing the operating system for the benefit of allowing each logical partition to achieve independent access to channel paths, control units and I/O devices that are configured to and dynamically shared by multiple logical devices.

14. With regards to claims 9, 24 and 40, Brice teaches the method of claim 8, wherein the communications environment comprises a central processing complex [fig 1 element 100] having a plurality of logical partitions [fig 1 elements 112] executing a plurality of operating system images [fig 1 elements 112 – paragraph 59], said central processing complex being coupled to a plurality of multiple image facility images [fig 1 element 115 shown in fig 1C having multiple MIFs], each multiple image facility image of one or more multiple image facility images of said plurality of multiple image facility images comprising a plurality of sets of I/O communications subadapters [paragraph 69] for the same benefits as those show above under the claim 8 rejection.

#### ***Allowable Subject Matter***

Claims 10, 25 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:



With regards to claims 10, 25 and 41, the prior art of record alone or in combination fails to teach or fairly suggest wherein the plurality of multiple image facility images are associated with one or more I/O subsystem images of an I/O subsystem coupled to the central processing complex, said I/O subsystem being configured as a plurality of I/O subsystem images, each I/O subsystem image appearing to the operating system as an independent and complete I/O subsystem.

### ***Response to Arguments***

Applicant's arguments filed 11/6/06 have been fully considered but they are not persuasive

15. With regards to Applicant's arguments directed to independent claims 1, 16, 31 and 32 in remarks page 11, the Examiner respectfully disagrees. As per the explanation above under the claims rejection, the at least one set of I/O communications subadapters [any of the elements 202A-202D in figs 2 and 3A] of the plurality of sets of I/O communications subadapters [figs 2 and 3A, elements 202A-202D] comprises a plurality of I/O communications subadapters [fig 2 elements 204A, 204E within element 202A, elements 204H, 204I within element 202B, elements 204H, 204I within element 202C, and elements 204H, 204I within element 202D – the 204x elements being used to address different channel paths. (204x addresses channel 128x). Elements 204x are used to address physical paths. e.g. 204H and 204I within element 202B, address the physical path to 128H and 128I respectively thus 204H and 204I being subadapters themselves – see column 2 lines 8-33. Alternatively, in fig 3 elements 304x within elements 202A-202D also act as subadapters by pointing to plurality of paths or channels – column 5 line 57 to column 6 line 54].

16. With regards to Applicant's arguments directed to dependent claims 7, 22 and 38, in remarks page 12, Coscarella teaches the claimed limitation as disclosed in column 9 lines 19-

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35. in Figure 2, the CHPIDS stored in elements 204x within elements 202 indicate to the operating the available paths/channels for communication to take place. The 204x CHPIDS are initialized or originally set by the operating system by using a command prior to their use. If they weren't set then there would be no element to call thus they wouldn't be enabled to be used.

17. With regards to Applicant's arguments directed to dependent claims 11, 26 and 42, in remarks page 12, the Examiner respectfully disagrees. Coscarella teaches the claimed limitation as disclosed as shown in the claim 1 rejection above, and further teaches the subadapters are represented by a subchannel set identifier as per column 5 line 57 to column 6 line 54 – elements 202 are tables which hold data. In order to access the tables (or the data within each table), the table have an identifier that is addressed in order to access or change the data within.

18. With regards to Applicant's arguments directed to dependent claims 13, 28 and 44, in remarks pages 12-13, the Examiner respectfully disagrees. A set is subjective as to how a grouping can be made out of available elements. I/O communications subadapter elements 202A, 202B, 202C and 202D are elements which can be arranged as one set or several sets can be made that include different combination of the elements. As per figs 2 and 3A, grouping element 202A as one element in one set, and grouping elements 202B-202D are three elements in another set anticipate the claimed limitation.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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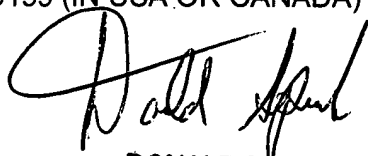
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Martinez whose telephone number is (571) 272-4152. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz M. Fleming can be reached on 571-272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DEM



**DONALD SPARKS**  
SUPERVISORY PATENT EXAMINER